



State Revolving Fund Loan Programs

Drinking Water, Wastewater, Nonpoint Source

ENVIRONMENTAL ASSESSMENT AND FINDING OF NO SIGNIFICANT IMPACT

Allen County Regional Water & Sewer District
Sewer Extensions to Two Areas & Treatment at Fort Wayne Wastewater Treatment Plant
State Revolving Fund Project # WW06 53 02 01b

DATE: November 21, 2007

DEADLINE FOR SUBMITTAL OF COMMENTS: Dec 21, 2007

I. INTRODUCTION

The above entity has applied to the State Revolving Fund Loan Program (SRF) for a loan to finance all or part of the wastewater project described in the accompanying Environmental Assessment (EA). As part of facilities planning requirements, an environmental review has been completed which addresses the project's impacts on the natural and human environment. This review is summarized in the attached EA.

II. PRELIMINARY FINDING OF NO SIGNIFICANT IMPACT (FNSI)

The SRF has evaluated all pertinent environmental information regarding the proposed project and determined that an Environmental Impact Statement is not necessary. Subject to responses received during the 30-day public comment period, and pursuant to Indiana Code 4-4-11, it is our preliminary finding that the construction and operation of the proposed facilities will result in no significant adverse environmental impact. In the absence of significant comments, the attached EA shall serve as the final environmental document.

III. COMMENTS

All interested parties may comment upon the EA/FNSI. Comments must be received at the address below by the deadline date above. Significant comments may prompt a reevaluation of the preliminary FNSI; if appropriate, a new FNSI will be issued for another 30-day public comment period. A final decision to proceed, or not to proceed, with the proposed project shall be effected by finalizing, or not finalizing, the FNSI as appropriate. Comments regarding this document should be sent within 30 days to:

**Max Henschen
Senior Environmental Manager
State Revolving Fund -- IGCN 1275
100 N. Senate Ave.
Indianapolis, IN 46204
317-232-8623**

ENVIRONMENTAL ASSESSMENT

I. PROJECT IDENTIFICATION

Project Name: Allen County Regional Water & Sewer District
P.O. Box 11888
Fort Wayne, IN 46861-1888

SRF Project Number: WW06 53 02 01b

Authorized Representative: Dan Lawrence, President
Board of Trustees

II. PROJECT LOCATION

Allen County Regional Water & Sewer District (ACRW&SD) is located in Allen County in northwest Indiana. The ACRW&SD study area and 20-year service area are one and the same and include all of the unincorporated areas within Allen County.

The projects described here will provide sewer service to two areas: Bluffton Road-Brookfield Place Addition, in the Ossian USGS quadrangle, T29N, R12E, sections 9, 10, 15, and 16, Pleasant Township; and the Kroemer Road-Bass Road Area, in the Fort Wayne West USGS quadrangle, T31N, R12E, sections 31 and 32, Washington Township (see Figure 1).

III. PROJECT NEED AND PURPOSE

The sanitary sewage collection systems within the District service areas consist of approximately 62,080 feet of 4-inch through 12-inch gravity sewers with manholes and approximately 19,225 feet of 4-inch and 6-inch service laterals. The majority of the District's sewers are polyvinyl chloride (PVC) pipe with "O" ring joints. In addition, the District has fifty-nine pumping stations with approximately 77,615 feet of 2-inch through 8-inch PVC or ductile iron (DI) force mains. Infiltration/Inflow (I/I) is a problem associated with specific sewers in the various collection systems. I/I is more prevalent in the Hoagland, Arcola, and Mayhew collection systems.

Due to failing septic systems and more stringent septic system regulations, the District has been approached on a regular basis by county residents to have sewers extended to their areas. The District has a petition process, coupled with the local Department of Health's (DOH) analysis of septic systems, followed by public meetings where they gauge the interest of the homeowners. The State Revolving Fund (SRF) Loan Program issued an Environmental Assessment/Finding of No Significant Impact on April 5, 2007, which proposed extending sewer service to five unsewered subdivisions around Fort Wayne: Cedar Shores Addition; Georgian Park Addition; Leesburg Road-Beineke Road Area; Platter Parkway Addition; and the Thiele Road Area. Those projects were approved for SRF funding on May 7, 2007. Since that time, the District has been unable to come to agreement with the Leo-Cedarville Regional Sewer District to treat the wastewater from the Cedar Shores subdivision. Since there is a

demand to provide sewer service to other areas, the District now proposes an amendment to its approved Preliminary Engineering Report (PER) to replace the SRF-approved Cedar Shores project with two new project areas: Bluffton Road-Brookfield Place Addition and the Kroemer Road-Bass Road Area. Therefore, this amendment proposes sanitary service to a total of six unsewered areas, four of which were discussed in the EA/FNSI of April 5, 2007. Therefore, this EA/FNSI discusses in detail only the two added projects. The District has recalculated the cumulative cost of the projects (see Section V).

The Bluffton Road-Brookfield Place Addition has 24 individual on-site septic systems. Eighteen homes have a filter bed system, of which 92 percent were installed prior to 1981.

The Kroemer Road-Bass Road has 10 individual on-site septic systems. Seven homes have filter bed systems, of which 60 percent were installed prior to 1985.

The Fort Wayne – Allen County DOH conducted an investigation of the on-site systems in each of the two new areas. In correspondence dated October 15, 2007, the DOH stated: “...*this Department has documentation of failed septic systems that are creating public health hazards in both of these areas. Further, we recognize public sewer as the best solution to the problems in these areas, and fully support the ACRWSD in their on-going efforts to clean up these non-point source pollutants.*”

The DOH also sampled for *E. coli* at the various tile outfalls discharging into nearby ditches and streams within each area. Three sites tested near Bluffton Road-Brookfield Place Addition produced the following results: (1) a 6-inch community tile from the addition on the west side of Bluffton Road showed 710,000 colony forming units (cfu) /100 milliliter (ml), (2) a 15-inch corrugated steel pipe from the Brookfield Place Addition showed 9,000 cfu/100 ml, and (3) an 8-inch clay tile from the Brookfield Place Addition showed 500 cfu/100 ml. Three sites tested near the Kroemer Road-Bass Road produced the following results: (1) standing water at 1829 Kroemer Road showed 60,000 cfu/100 ml, (2) a broken 4-inch community tile near 2029 Kroemer Road showed 120,000 cfu/100 ml, and (3) a 4-inch cleanout west of an 8-inch community tile at 1725 Kroemer Road showed 2,400 cfu/100 ml.

Based on the testing data and the current standard for clean water of 235 cfu/100 ml of *E. coli* bacteria, the use of septic tanks in the proposed additional service areas represents a significant health and safety issue to the residents. In addition, the lack of appropriate separation between the failed septic systems and potable water wells is a drinking water quality concern.

IV. PROJECT DESCRIPTION

The proposed amended project will provide municipal sanitary sewer service to the Bluffton Road-Brookfield Place Addition and the Kroemer Road-Bass Road Area, as well as four previously approved project areas.

A. Bluffton Road-Brookfield Place Addition sanitary sewer system includes (see Figure 2):

1. Approximately 2,580 feet of 8-inch PVC sanitary sewer on Bluffton Road & Winters Road;
2. Approximately 10 manholes;
3. Approximately twenty-four 8-inch x 6-inch wyes;
4. Approximately 690 feet of 6-inch PVC service laterals;

5. Approximately 770 cubic yards of special backfill; and
6. Approximately 110 square yards of asphalt pavement replacement.

B. Kroemer Road-Bass Road Area sanitary sewer system includes (see Figure 3):

1. Approximately 1,300 feet of 8-inch PVC sanitary sewer on Kroemer Road;
2. Approximately 450 feet of 1½ -inch PVC or DI force main on Kroemer Road;
3. Approximately 5 manholes;
4. Approximately two grinder pump stations rated at 100 gallon per minute (gpm) each;
5. Approximately two 1½ -inch stop and check valve assemblies;
6. Approximately seven 8-inch x 6-inch wyes;
7. Approximately 70 feet of 6-inch PVC service laterals;
8. Approximately 40 feet of 4-inch PVC service laterals;
9. Approximately 150 cubic yards of special backfill;
10. Approximately 25 square yards of asphalt pavement replacement;
11. Approximately one overhead electrical service;
12. Approximately 200 feet of electrical conductor cable; and
13. Approximately three 4-inch backwater check valves.

The preliminary design flow for each of the two new service areas is as follows:

1. Bluffton Road-Brookfield Place Addition: estimated average design flow of 7,440 gallons per day (gpd) and estimated peak flow of 29,760 gpd; and
2. the Kroemer Road-Bass Road Area: estimated average design flow of 3,100 gpd and estimated peak flow of 12,400 gpd.

The organic loadings associated with the raw sewage from each project area are:

5 day Carbonaceous Biochemical Oxygen Demand (CBOD₅): 200 milligrams per liter (mg/l);
Total Suspended Solids (TSS): 200 mg/l; and
Ammonia-Nitrogen (NH₃-N): 20 mg/l.

The Fort Wayne wastewater treatment plant will treat the wastewater from the two added project areas.

V. ESTIMATED PROJECT COSTS, AFFORDABILITY AND FUNDING

A. Selected Plan Estimated Cost Summary

Construction Items

<u>Project Areas</u>	<u>Cost</u>
1. Georgian Park Addition	432,500
2. Leesburg Road – Beineke Road Area	205,000
3. Platter Parkway Addition	370,000
4. Thiele Road Area	105,000
5. Bluffton Road-Brookfield Place Addition *	173,500
6. Kroemer Road-Bass Road *	94,000
Subtotal Construction Cost	\$1,380,000
Contingency	<u>80,000</u>
Total Estimated Construction Cost	\$1,460,000

Non Construction Items

Technical Fees	\$ 150,000
Resident Project Representative	60,000
Local Legal and Bond Counsel	25,000
Financial Advisor	30,000
Administrative	<u>5,000</u>
Subtotal Non-Construction Cost	\$ 270,000
Total Estimated Project Cost	\$ 1,730,000

* New service areas added since 5/5/07 PER approval

- B. ACRW&SD will borrow approximately \$1,730,000 from the State Revolving Fund (SRF) for a 20-year term at a fixed interest rate to be determined at loan closing. The previous total project cost, before the Cedar Shores project was dropped and the two new projects added, was estimated to be \$2,150,000.

As part of an interlocal agreement, that has not yet been finalized, the Fort Wayne wastewater treatment plant will provide its services to the District for the Leesburg-Beineke Road Area, the Thiele Road Area, the Bluffton Road-Brookfield Place Addition, and the Kroemer Road-Bass Road Area. The SRF will not close a loan with the District until an interlocal agreement between the District and Fort Wayne has been completed and submitted to the SRF. Likewise, prior to SRF loan closing, the District must submit completed interlocal agreements between (1) the District and New Haven for treatment of wastewater from the Georgian Park Addition, and (2) the District and Woodburn for treatment of wastewater from the Platter Parkway Addition before an SRF loan can be closed. The interlocal agreements will address rates and charges.

VI. DESCRIPTION OF EVALUATED ALTERNATIVES

The No-Action alternative was eliminated from consideration for the two new project areas, since failing on-site septic systems would still discharge untreated sewage into nearby streams or ditches causing a potential public health problem, as well as threatening local wells.

Bluffton Road-Brookfield Place Addition: Due to topography and the proximity to a recently constructed interceptor in Fort Wayne's municipal collection system, the conventional gravity sewer system was the only collection system alternative evaluated.

Kroemer Road-Bass Road Area: Due to topography and the proximity to a recently constructed sanitary sewer in Fort Wayne's collection system, the conventional gravity sewer system alternative was selected for seven of the homes, while a low pressure grinder pump system was selected for the remaining three homes.

VII. ENVIRONMENTAL IMPACTS OF THE FEASIBLE ALTERNATIVES

A. Direct Impacts of Construction and Operation

Disturbed and Undisturbed Areas: Sewers will be placed within previously disturbed road rights-of-way or within utility corridors previously disturbed by installation of other utilities.

Historical/Architectural/Archaeological Sites (Figure 4a and 4b): The two new projects will not affect historic sites. In the unpublished Allen County survey of historic sites and structures, site # - 003-215-30045, is listed as a "contributing" site on 5132 Bass Road, approximately 600-700 feet from the proposed sewer on Kroemer Road. Visual and audible effects, if any, to this site will be temporary. There were no sites found in the Bluffton Rd.-Brookfield Addition project area. The SRF's finding pursuant to Section 106 of the National Historic Preservation Act is: "no historic properties affected."

Plant and Animals: The construction and operation of the two new projects will not negatively impact state or federally listed endangered species or their habitat. Wooded areas will not be affected.

Prime Farmland: The proposed projects will not cause a conversion of prime farmland.

Wetlands and Surface Waters (Figure 5a): The Bluffton Road-Brookfield Place Addition project will cross Harber Ditch, a riverine wetland, on Winters Road. The crossing will probably be directionally drilled, rather than open-cut. There are no wetlands in the path of the proposed sewer on Kroemer Road. The proposed projects will not affect Natural, Scenic and Recreational Rivers and Streams, Exceptional Use Streams, or Outstanding State Resource Waters.

100-Year Floodplain (Figure 6): One of the sewer lines for the Bluffton Road-Brookfield Place Addition will be located within the 100-year floodplain; however, since the line will be underground no displacement of flood waters will occur. The Kroemer Road-Bass Road project is not located in a 100-year floodplain.

Groundwater: The proposed projects will not impact groundwater. Dewatering during excavation of sewer trenches may occur in areas with high groundwater.

Air Quality: Temporary impacts to air quality through equipment exhaust and dust will occur during construction.

Open Space and Recreational Opportunities: Construction and operation of the proposed projects will neither create nor destroy open space and recreational opportunities.

National Natural Landmarks: The proposed project will not impact National Natural Landmarks.

B. Indirect Impacts

The District's PER states: *"The amended proposed sanitary sewer system projects will allow the District to provide sewer service to two new regions outside of established municipal service areas. The new sanitary sewage systems will eliminate failing, on-site septic systems and provide users with municipal sanitary sewer service. It is unknown whether or not these sanitary sewer systems will create or attract new development. It is dependent more so on the location of the service area and the availability of undeveloped land adjacent to the sewers within the new service area. The District will ensure, through the authority of its Board and local zoning laws, that future development will not adversely impact environmentally sensitive areas by enforcing the requirements and guidelines of the IDNR, U.S. Fish and Wildlife Service, IDEM, and the Allen County Drainage Board."*

C. Comments from Environmental Review Authorities

The Natural Resources Conservation Service, in correspondence dated November 1, 2007, stated that the project *"will not cause a conversion of prime farmland."*

This assessment serves as the first notice to the U.S. Fish and Wildlife Service, the IDNR Environmental Unit and the State Historic Preservation Officer.

VIII. MITIGATION MEASURES

The District's PER lists the following mitigation measures:

"Each amended project area will comply with IDEM's Rule 5 requirements with respect to the mitigation of soil erosion and a detailed plan will be submitted for approval with the completed construction plans and specifications."

"The projects will be implemented to minimize impacts to non-endangered species and their habitat."

"Several contractors have inquired about directional drilling [the Harber Ditch crossing] in lieu of open cutting, but in the event that the ditch is open cut, the restoration of said ditch involves the rip-rapping of the trench areas to prevent soil erosion as well as provide future habitat for the ecosystem of the ditch."

"Mitigation measures set forth by the IDNR and the U.S. Fish & Wildlife Service will be implemented during construction."

"Wetting, sweeping streets and/or chemical stabilizers (calcium chloride) will be used to control dust generated during all phases of the proposed projects. Open burning of construction debris will not be permitted."

"Mitigation measures typically cited in comment letters from the Indiana Department of Environmental Management, the Indiana Department of Natural Resources and the U.S. Fish and Wildlife Service will be implemented."

IX. PUBLIC PARTICIPATION

The District held a public hearing on June 28, 2006 at the Commissioner's Courtroom at the Fort Wayne City – County Building to discuss the original five approved projects. Since that time, the District has dropped the Cedar Shores Addition and added the Bluffton Road-Brookfield Place Addition and the Kroemer Road-Bass Road Area, as reflected in its amended PER. The District held a public meeting on February 27, 2007 to discuss the Bluffton Road-Brookfield Place Addition project. On November 27, 2006, the District held a public meeting to discuss the Kroemer Road-Bass Road project. The District will also publish a public notice about the project and notify affected parties by certified mail.

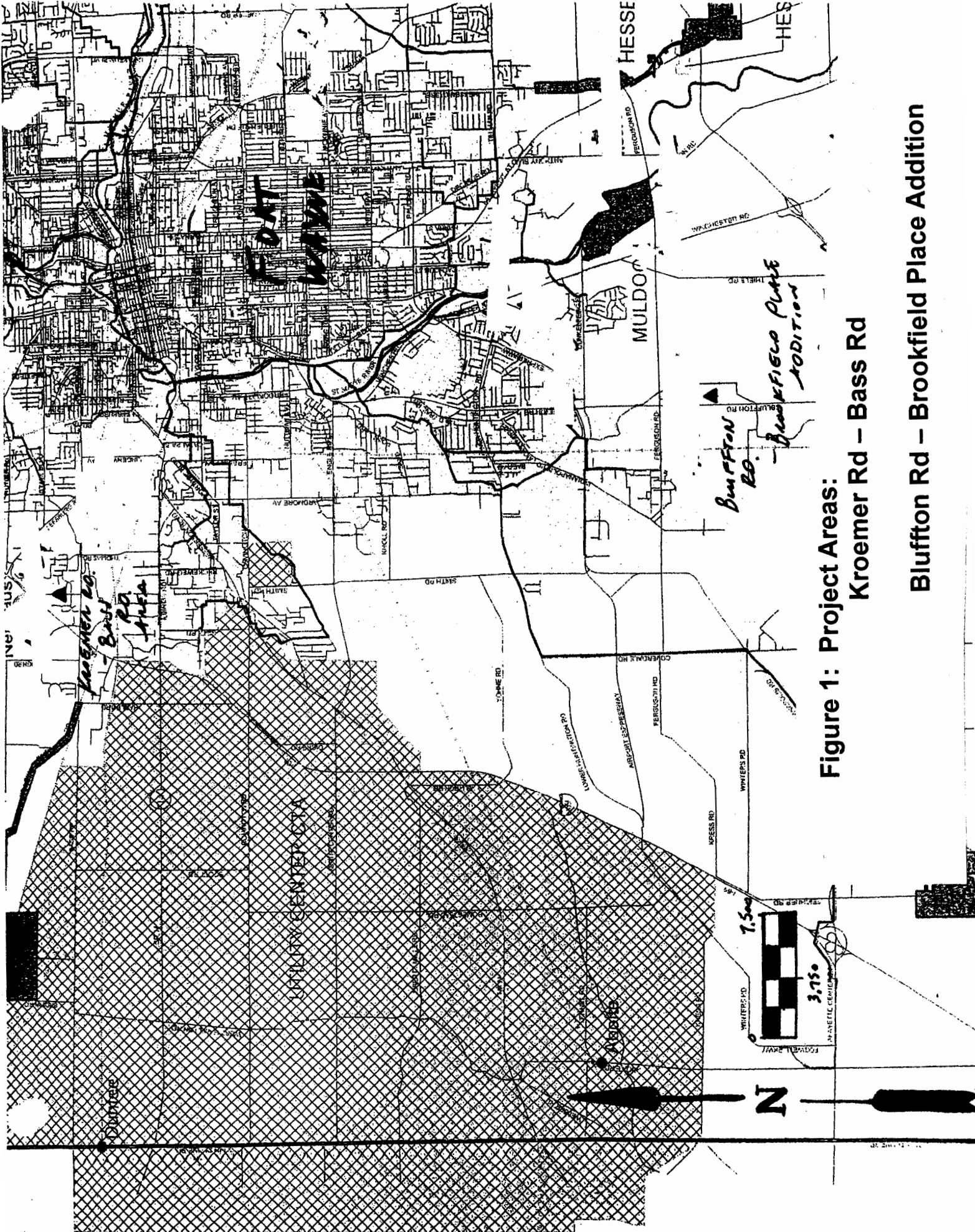
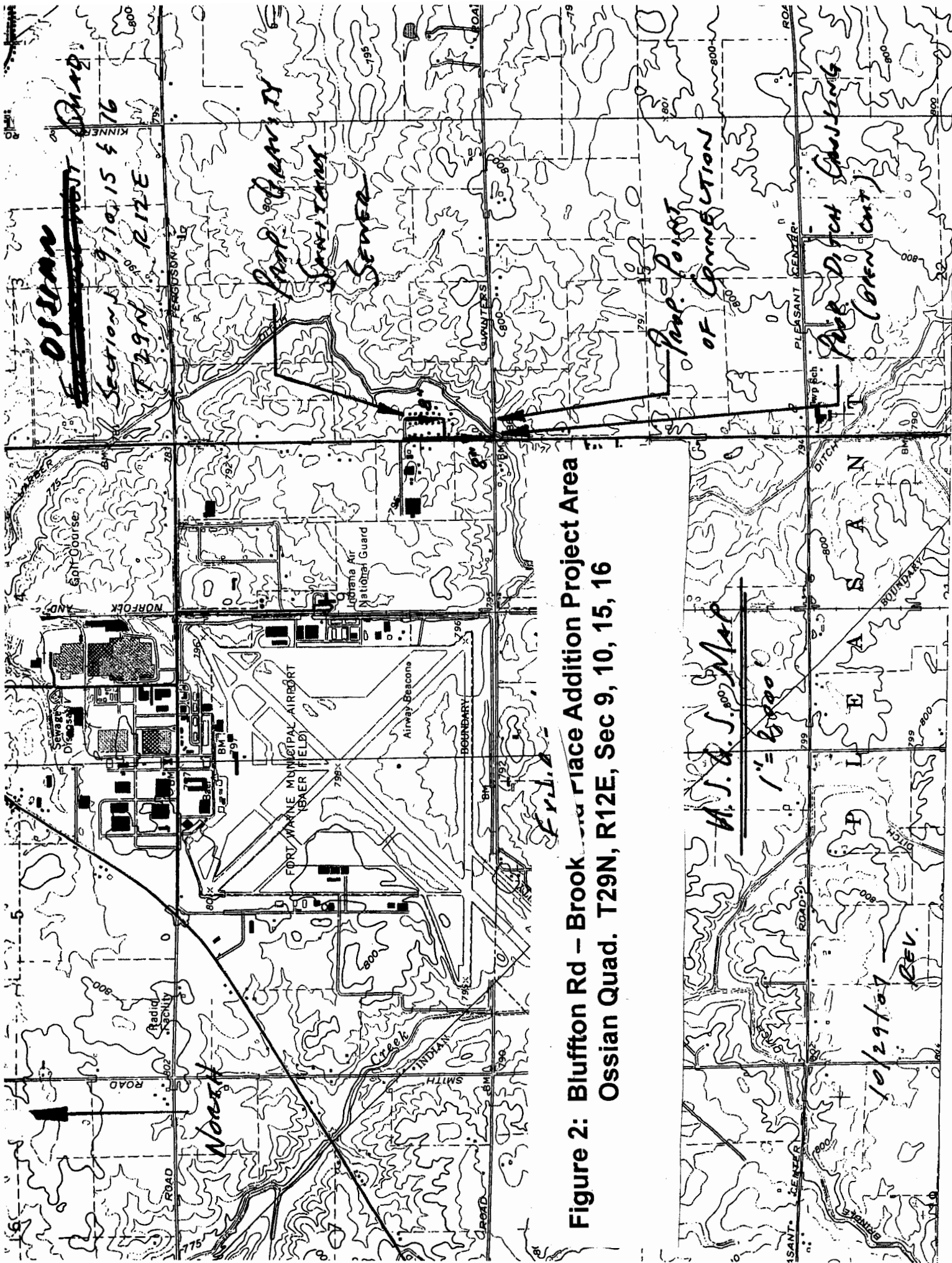


Figure 1: Project Areas:

Kroemer Rd – Bass Rd

Bluffton Rd – Brookfield Place Addition



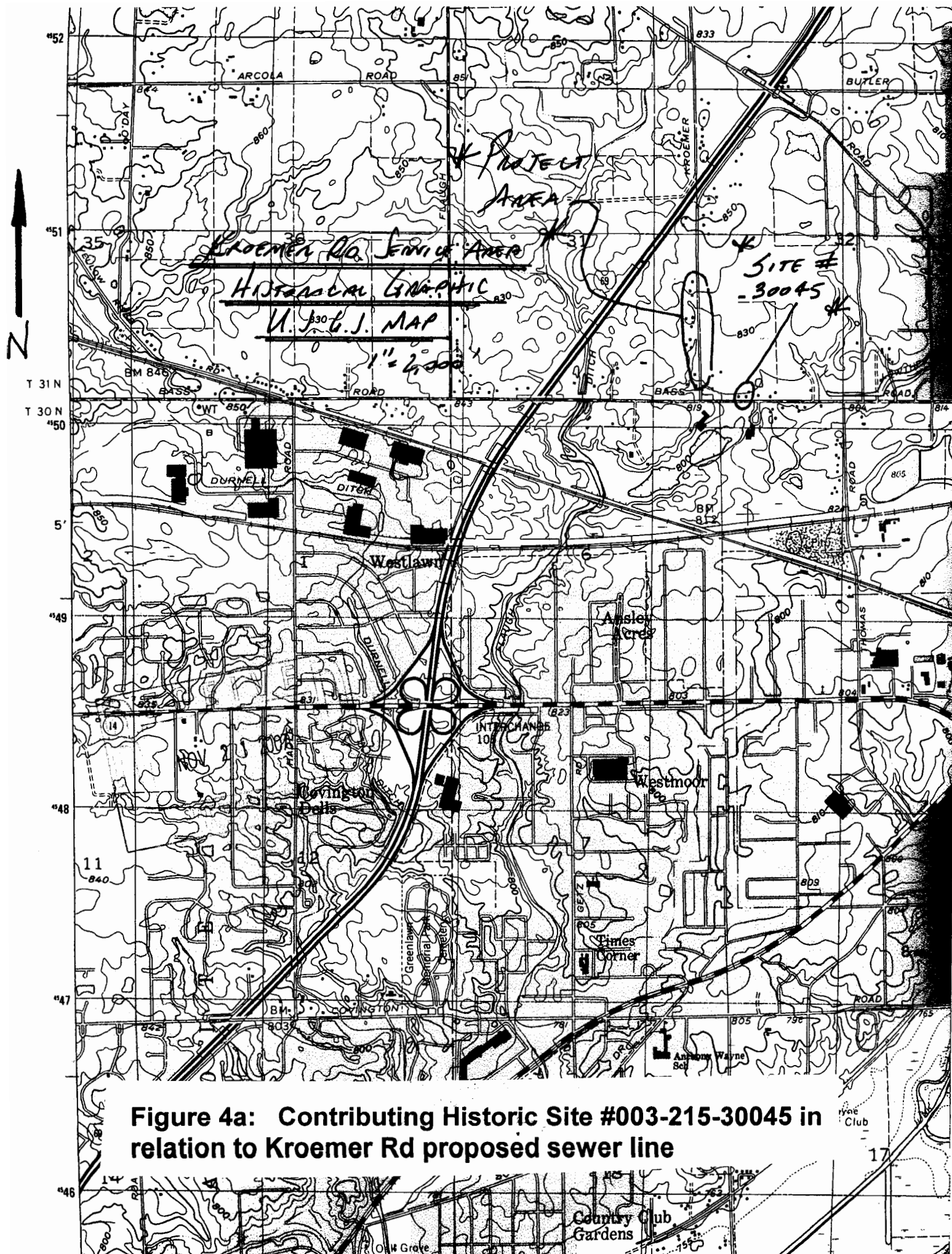


Figure 4a: Contributing Historic Site #003-215-30045 in relation to Kroemer Rd proposed sewer line

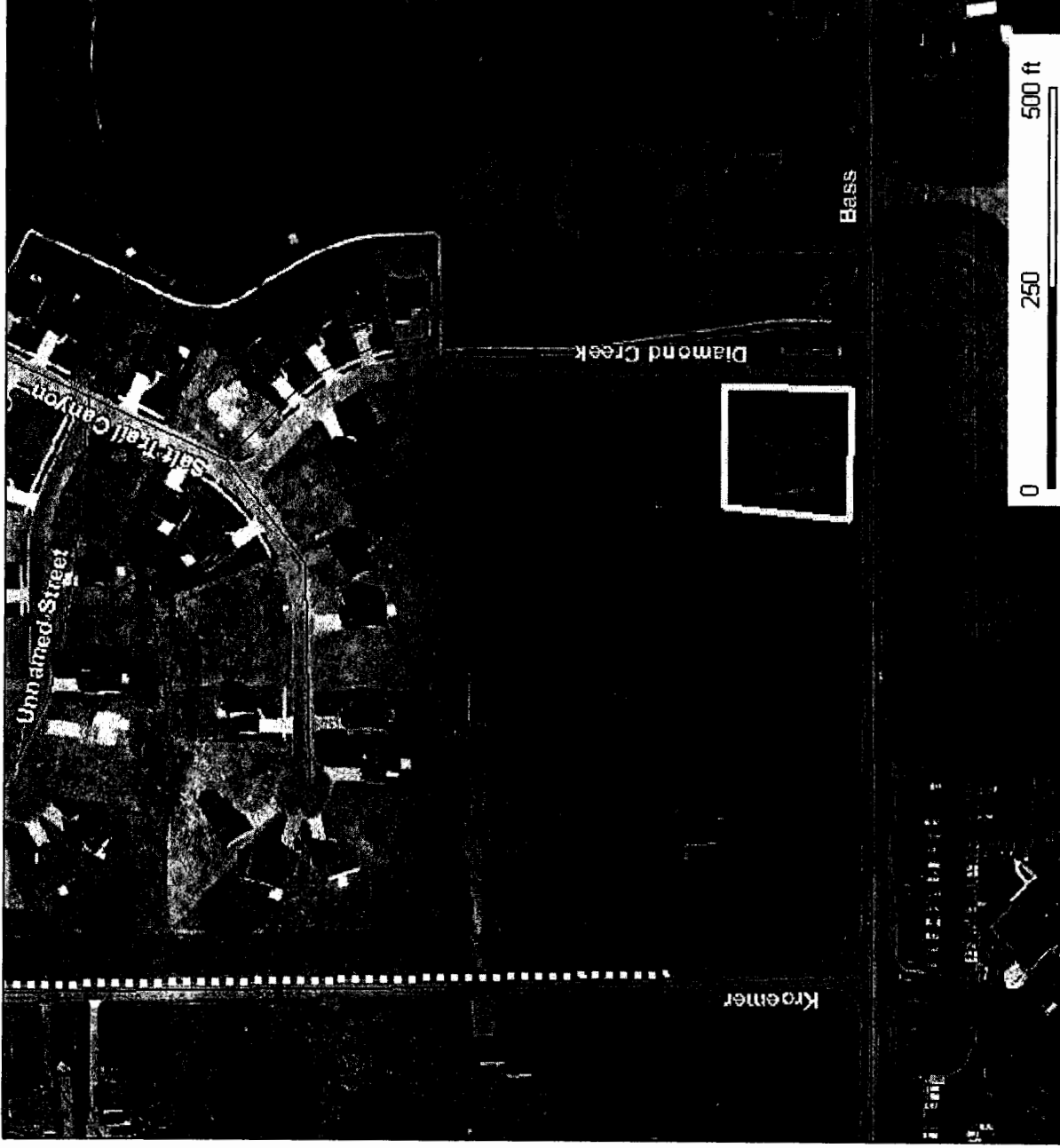


Figure 4b: Contributing Site #003-215-30045 (White Square) and proposed Kroemer Rd. sewer (white dashed line)

Scale 1:2531

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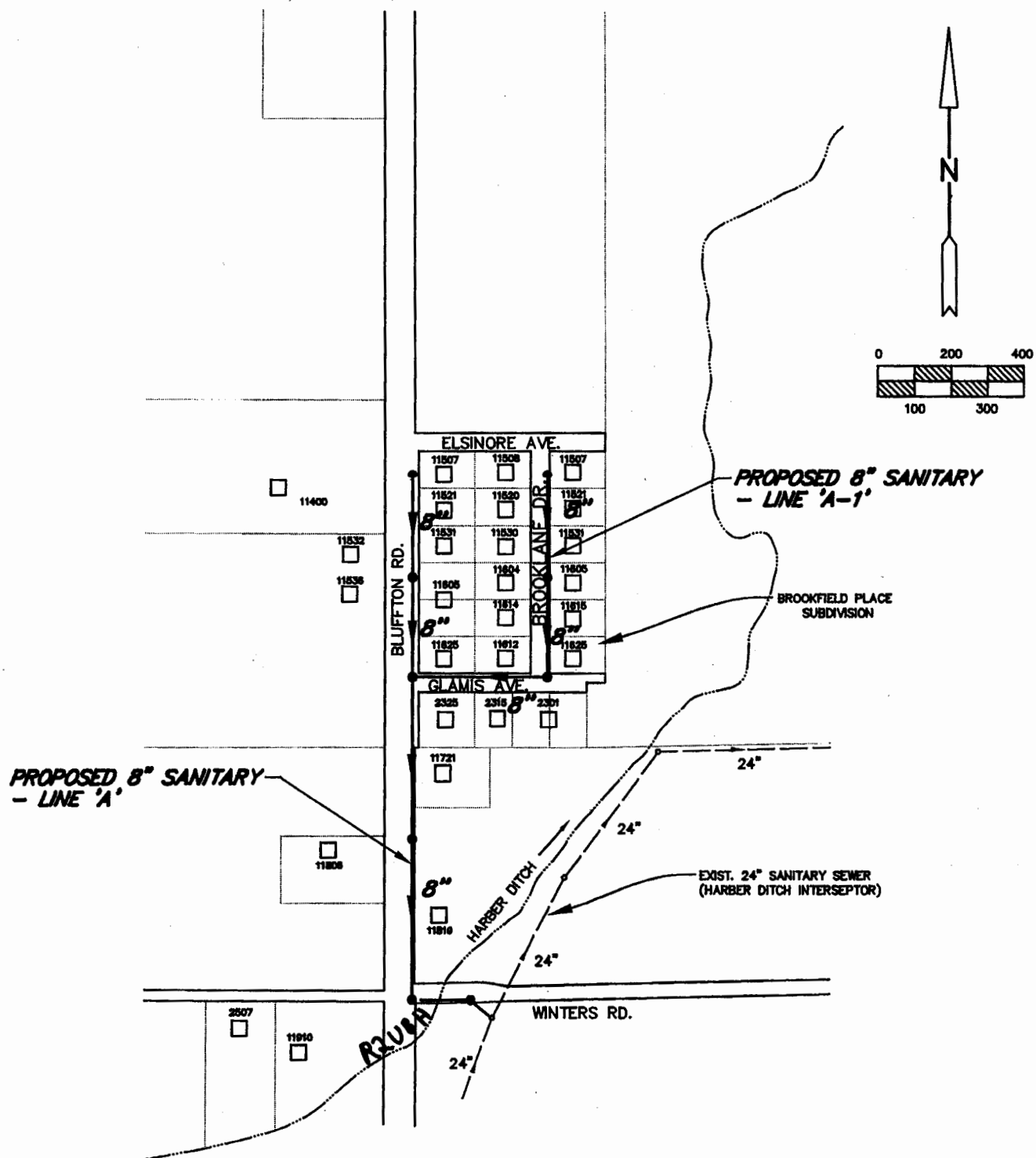
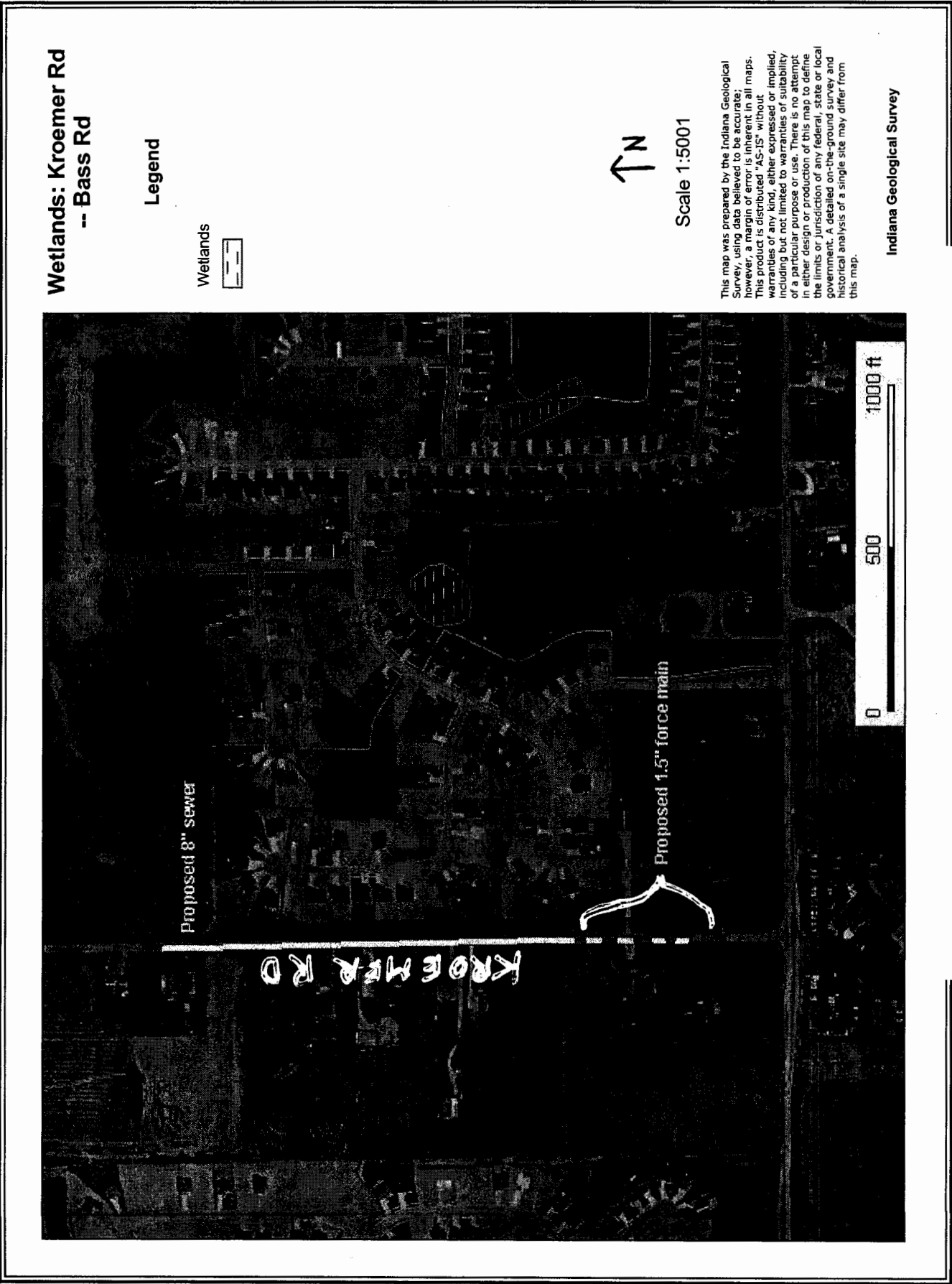
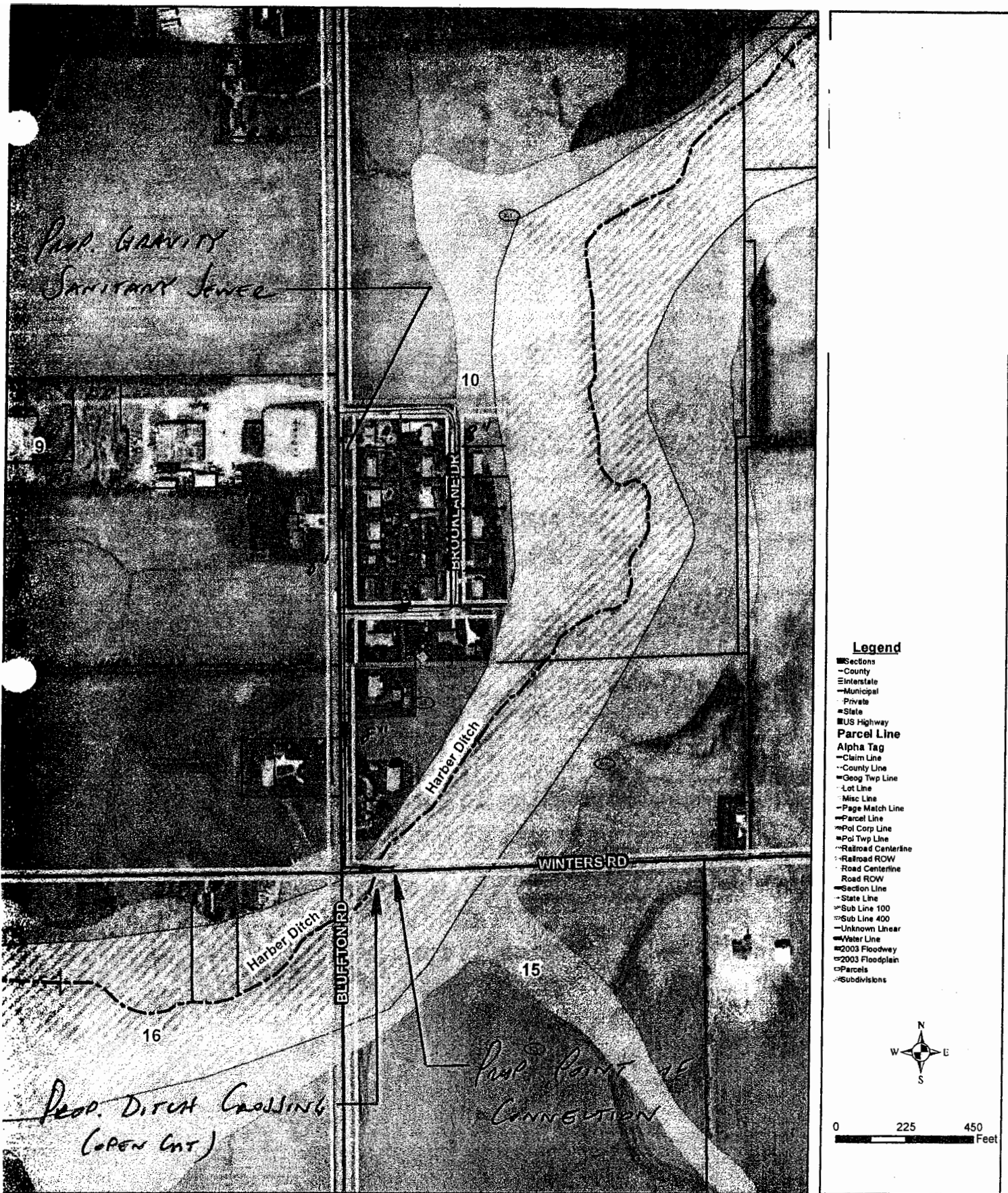


Figure 5a: Bluffton Rd – Brookfield Place Addn. Wetlands (Harber Ditch)





Allen County, Indiana

Figure 6: Bluffton Rd – Brookfield Place Addtn. 100-Yr Floodplain